

## AN AUDIT OF CARCINOMA OF LIP AT LIAQUAT UNIVERSITY HOSPITAL, JAMSHORO – PAKISTAN

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### ABSTRACT

**OBJECTIVES:** To see the common clinical presentations of carcinoma of lip and outcome of surgical procedures associated with it in our set up.

**PLACE AND DURATION OF STUDY:** Liaquat University Hospital, Jamshoro; Sindh – Pakistan from January 1981 to December 2002.

**DESIGN:** A descriptive study.

**PATIENTS AND METHODS:** Medical records of 96 cases of carcinoma of lip treated in both surgical and plastic surgical units at Liaquat University Hospital were analyzed retrospectively.

**RESULTS:** Male and female ratio was 1.33:1. About 65% of the patients presented between 41-60 years of age. Site was lower lip in 63 cases, upper lip in 15 cases and labial commissure in 13 cases. Extensive carcinoma with involvement of both lips and angle of mouth and cheek was in 5 cases. In all cases, surgery was performed. Chemotherapy was given to 20 cases while radiotherapy to 47 cases. 50 cases presented with history of tobacco use. 50% of the cases had submucous fibrosis and leukoplakia. Meanwhile, 6 patients had history of associated skin diseases (Xeroderma pigmentosa and systematic lupus erythromatus).

**CONCLUSION:** In managing cases of carcinoma of lip in our set up, emphasis should be given to curative treatment and simple reconstructive surgery.

**KEY WORDS:** *Carcinoma, Lip. Etiology. Treatment. Reconstruction, Surgery. Pakistan.*

### INTRODUCTION

Lip is the frequent site of cancer of oral cavity. Carcinoma of lip develops in the vermillion border of the lip<sup>1</sup>. The great majority of these malignancies are squamous cell carcinomas<sup>2</sup>. Lip cancer predominantly affects the lower lip and particularly occurs in males. The main risk factors involved are cumulative lifetime exposure to sunlight and the use of tobacco. It usually presents at an early stage. Since, lip cancers in most instances are easily recognized, they may be diagnosed at an early stage. Lip cancer is best cured when it is diagnosed early<sup>2-3</sup>.

Carcinoma of lip is a slow growing tumor and most patients present with tumor size upto 4cms involving only 15% to 40% of entire lip. In western part of the world, patient typically presents in 7<sup>th</sup> and 8<sup>th</sup> decade of life<sup>4-5</sup>. The five year survival of patients with lip carcinoma and confirmed regional metastasis approaches 50%. Meanwhile, five year cure rate for T1 and T2 lesions without cervical metastasis approaches 90% with little surgery or irradiation.

Hence, prognosis of lip cancer depends on the extent of disease at the time of presentation. Patients of this cancer typically present after a somewhat protracted course i.e. a lesion presenting with typically crusted ulcer and frequently taking courses of antibiotics with off and on improvements till it becomes a palpable mass. Lymphadenopathy may or may not be associated but if present may be infective in origin and hence has to be treated. The primary goal of treatment is eradication of the disease. The modes of treatment include preservation of oral competence, preservation of adequate buccal mucosa, minimization of deformity and restoration of cosmetically acceptable oral cavity. Hence, primary surgical excisions offer the advantage of eradication of disease, pathological survey of margins and reconstruction of defect in a single stage.

In this paper, common clinical presentations, risk factors and outcome of different management options associated with carcinoma of lip in our setup are reported.

## PATIENTS AND METHODS

This descriptive study was conducted at Departments of Surgery and Plastic Surgery, Liaquat University Hospital, Jamshoro, Sindh, Pakistan. For study purpose a proforma was made and medical records of 96 cases of carcinoma of lip treated over a time period from January 1981 to December 2002 were analyzed. All the demographic characteristics, information related with disease and management options were noted.

## RESULTS

Of 96 cases of carcinoma of lip studied, male patients were 55 and female were 41 with ratio of 1.33:1. About 65% of the patients presented between 41-60 years of age (**Table I**). Site was lower lip in majority of the cases (**Table II**). Extensive carcinoma with involvement of both lips and angle of mouth and cheek was in 5 cases. In all cases surgery was done, which included excision of the lesion with block dissection. When indicated, reconstruction was done with good results. Extensive lesions with involvement of angle of mouth, both lips and cheeks (5 cases) were given pre-operative methotrexate 50mg intravenous weekly, 4-6 courses for regression of the size of tumor before undertaking surgery and reconstruction. Pre and post operative radiotherapy was given to 47 cases. Details of surgical procedures performed in these patients are given in **Table III**. Sub-hyoid block dissection was done in 17 and classical block dissection was done in 11 cases. 15 cases received postoperative chemotherapy. Radiotherapy was given to 47 cases. Of these, 10 cases received radiotherapy due to recurrence after surgery. All 26 nodal positive cases (**Table IV**) received radiotherapy post-operatively. In 11 cases pre-operative radiotherapy was given due to extensive lesion followed by surgery. 50 cases gave history of using tobacco in the form of smoking (Biri/ Cigarette) or smokeless tobacco (Naswar/Gutka) in addition to exposure to sunlight. 15 cases presented with history of either betel nut / pan chewing tobacco. 6 patients presented with history of associated skin diseases, which included 4 patients with xeroderma pigmentosa (2 male, 2 female) while 2 male patients had systematic lupus erythromatus (SLE). 50% of cases had submucous fibrosis and leukoplakia. Only 2 cases presented with secondary carcinoma of upper lip.

Table I showing age distribution of cases

Age group	No. of cases (%)
<b>Primary tumor</b>	
Upto 30 years	03 (3.12%)
31-40 years	08 (8.33%)
41-50 years	43 (44.8%)
51-60 years	20 (20.83%)
61-70 years	13 (13.54%)
71-80 years	07 (7.3%)
<b>Secondary carcinoma</b>	
Upto 30 years	01 (1.04%)
Less than 1 year	01 (1.04%)
Total	96 (100%)

Table II showing sites of carcinoma in the cases

Sites	No. of cases (%)
Lower lip	63 (65.62%)
Upper lip	15 (15.62%)
Labial commisure	13 (13.54%)
Extensive carcinoma with involvement of both lips and angle of mouth and cheek	05 (5.21%)
Total	96 (100%)

Table III showing surgical methods performed in the management of cases

Modality	No. of cases (%)
Vermiectomy / shave excision	11 (11.46%)
V shaped excision and direct repair	23 (23.96%)
Switch over flaps	11 (11.46%)
Single fan flaps	19 (19.79%)
Double fan flaps	17 (17.71%)
Local subcutaneous flaps / Fascio cutaneous flaps + FSG	12 (12.5%)
Full thickness naso-labial flaps	03 (3.12%)
Total	96 (100%)



**Table IV showing staging of the carcinoma**

Size	Nodal Status	No. of cases (%)
2 cm	T1	13 (13.52%)
2 to 4 cm	T2	30 (31.25%)
	T3	33 (34.37%)
4 cm	T2 N1	07 (7.29%)
	T3 N1 & N2	11 (11.45%)
Metastatic		02 (2.08%)
Total		96 (100%)

**Figure no. I showing presentation of a case of carcinoma of lip before treatment**



**Figure No. II Same case after chemotherapy and surgery**



## DISCUSSION

Carcinoma of the lip is a relatively common malignancy of the head and neck region, accounting for approximately one quarter of oral cavity cancers. Although this form of cancer is generally readily curable compared with malignancies at other head

and neck sites, regional metastases, local recurrence, and even death from this disease may occasionally occur<sup>6</sup>.

The tumor size and presence or absence of cervical metastasis are two main factors which dictate about the type of surgery and treatment to be performed in a particular case of carcinoma. Carcinoma of lip is a slow growing tumor and most patient present with tumor size upto 4 cms involving only 15% to 40% of the entire lip. In these cases, V – shaped excision of lesion with closure of wound in 3 layers offers best cosmetic and functional results. Carcinoma involving more than 40% of lip, should always be dealt with excision followed by most appropriate reconstructive procedure<sup>7</sup>. Suprahyoid neck dissection and block dissection was done in 28 cases in our series who presented with the evidence of metastasis to cervical nodes of same side.

Advanced cases of carcinoma of lip were dealt with a combination of chemotherapy / pre operative radiotherapy and then surgery followed by radiotherapy/chemotherapy.

Surgery should be preferred over radiotherapy in early cases because it deals the entire lesion in one sitting and obviate the need of prolong follow up. It also helps in histopathology facilitating assessment of tumor grade and margin clearance, which is an important consideration in our set up. In western part of the world patient typically presents in 7<sup>th</sup> and 8<sup>th</sup> decade of life<sup>4,8,9</sup> while in our set up patient presents from 4<sup>th</sup> to 6<sup>th</sup> decade of life. In all reported studies male preponderance is very high but in our set up though male presented more than the female patients. But it was observed that females are also presenting in quite increased number. Reasons for this may be their field work, *Beri* and cigarette smoking, betel nuts and pan use.

5% to 15% patients with lip cancer present with regional metastasis, an additional 15% subsequently develop nodal metastasis. In our series, 18 cases out of 96 presented with nodal metastasis and additional 8 cases presented with delayed regional metastasis.

As frozen section biopsy is not available in our set up and follow up of cases is very poor so, we emphasize to do the surgery in stages leaving a gap between excisional surgery and reconstructive procedure particularly in those cases where we are not sure about the complete excision of the lesion. The size of oral cavity and the competence of oral sphincter are the two main considerations in reconstructive surgery

after excision of carcinoma of lip. Therefore this study is emphasizing on simple local reconstructive procedure, as opposed to complicated procedures like free flaps and distant flaps to give better functional and cosmetic results.

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